

**REMARKS**

Upon entry of the instant amendment and response, claims 1-4, 6-9, 11, 12, 14, 16, and 17 are pending and rejected. Claims 1-3 have been amended and claims 5 and 10 have been cancelled without prejudice in the instant amendment and response. Previously withdrawn claims 18-98 have been cancelled in view of the Restriction Requirement which issued in this application. Reconsideration is respectfully requested.

Applicants would like to thank Examiner Henry Hu for the courtesies extended to the undersigned representative in the interview of December 21, 2005 at the USPTO. Independent claim 1 and the claims dependent thereon were discussed in reference to Stepanian, Ryu, and Frank.

**Correction of Inventorship**

A petition to correct Inventorship is submitted concurrently herewith. It is requested that Bradley E. Reis be deleted as joint inventor to the application upon cancellation of the claims that are being cancelled due to the Restriction Requirement issued in this application.

**Objections to the Claims and Specification**

The specification and claims 1-3 have been amended to overcome the objection to clarify the approximation of atmospheric pressure when converted to Kelvin. This amendment is for purposes of clarity and consistency and is not intended to be in any way limiting to the claim scope.

**Claim Rejections under 35 U.S.C. §102**

Claims 1-12, 14, and 16-17 were rejected under 35 U.S.C. §102(b) as anticipated by Stepanian et al. (US Publication No. 2002/0094426 A1, herein "Stepanian"). Applicants assert that Stepanian is directed to an aerogel composite having two parts: 1) an aerogel matrix and 2) a reinforcing phase in the form of a lofty fibrous batting (for example, at page 2, paragraph 0013 and page 3, paragraph 0026). At page 4, suitable fibrous batting is defined by specific properties of bulk, compressibility, and

resiliency. The fibrous batting provides a support structure for the aerogel to minimize the volume of unsupported aerogel.

Applicants contend that Stepanian teaches a monolithic structure and does not disclose the unique and novel materials of the present invention comprising aerogel and PTFE particles, where the claimed material is in the form of a powder or putty. Thus, removal of the rejection in view of Stepanian is respectfully requested.

Claim Rejections under 35 U.S.C. §103

Claims 1-12, 14, and 16-17 were rejected under 35 U.S.C. §103(a) as unpatentable over Frank et al. (USPN 5,786,059, herein "Frank") in view of Stepanian. Frank discloses a planar composite of a layer of a fiber web and aerogel wherein the web is made of a bicomponent fiber. As noted in the Office Action of February 24, 2005, the bicomponent fiber has two firmly interconnected polymers of two different chemical constructions and different melting points. The layer of fiber web is formed as fibers of the web are bonded to each other, as well as to the aerogel particles. Frank does not disclose the use of PTFE (as noted in the Office Action of February 24, 2005). However, it is stated in the Office Action (February 2005) that it would be obvious to modify Frank by replacing the bicomponent fiber web with a mixture of PTFE and other fibrous materials as taught by Stepanian. Applicants assert that where Frank is directed to a planar composite with firmly interconnected fibers of differing melting points and Stepanian is directed to a monolithic composite comprising an aerogel and a lofty fibrous batting, the present invention is both novel and non-obvious. Neither disclose or suggest a material comprising PTFE and aerogel particles, and neither disclose or suggest the material in the form of a powder or in the form of a putty. Applicants therefore respectfully request removal of this rejection under 35 U.S.C. §103(a).

Prompt and favorable reconsideration of the claims is requested. However, if any further action on the part of Applicants is deemed

necessary, the Examiner should free to contact the Applicants' undersigned representative.

Respectfully submitted,

  
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